

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
Digital Output Protection Technology and Recording Method Certifications)	MB Docket No. 04-59
)	
SmartRight)	

**OPPOSITION TO THE APPLICATION OF THOMSON ET AL. FOR
INTERIM AUTHORIZATION OF SMARTRIGHT BY THE MOTION PICTURE
ASSOCIATION OF AMERICA, INC., METRO-GOLDWYN-MAYER STUDIOS INC.,
PARAMOUNT PICTURES CORPORATION, SONY PICTURES ENTERTAINMENT
INC., TWENTIETH CENTURY FOX FILM CORPORATION, UNIVERSAL CITY
STUDIOS LLLP, THE WALT DISNEY COMPANY, AND WARNER BROS.
ENTERTAINMENT INC.**

Jon A. Baumgarten
Bruce E. Boyden
Proskauer Rose LLP
1233 Twentieth Street NW, Suite 800
Washington, DC 20036
(202) 416-6800

DRAFT: April 5, 2004

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
Digital Output Protection Technology and Recording Method Certifications)	MB Docket No. 04-59
)	
SmartRight)	

**OPPOSITION TO THE APPLICATION OF THOMSON ET AL. FOR
INTERIM AUTHORIZATION OF SMARTRIGHT BY THE MOTION PICTURE
ASSOCIATION OF AMERICA, INC., METRO-GOLDWYN-MAYER STUDIOS INC.,
PARAMOUNT PICTURES CORPORATION, SONY PICTURES ENTERTAINMENT
INC., TWENTIETH CENTURY FOX FILM CORPORATION, UNIVERSAL CITY
STUDIOS LLLP, THE WALT DISNEY COMPANY, AND WARNER BROS.
ENTERTAINMENT INC.**

The Motion Picture Association of America, Inc. (“MPAA”), Metro-Goldwyn-Mayer Studios Inc., Paramount Pictures Corporation, Sony Pictures Entertainment Inc., Twentieth Century Fox Film Corporation, Universal City Studios LLLP, The Walt Disney Company, and Warner Bros. Entertainment Inc. (collectively, the “MPAA Parties”) hereby file this opposition to the application of Thomson, Axalto, Gemplus S.A., Micronas, NagraVision S.A., Pioneer Corporation, SCM Microsystems, and ST Microelectronics N.V. (collectively the “Applicant”) to have SmartRight approved on an interim basis as an Authorized Digital Output Protection Technology or as an Authorized Recording Method for use in protecting Marked and Unscreened Content (the “Application”).

The MPAA Parties believe that the SmartRight technology shows great promise, and in particular the potential to create an appropriately localized system for prevention of unauthorized redistribution of digital content. At this time, however, due to several unanswered questions

about the Application, the MPAA objects to certification of SmartRight as an Authorized Digital Output Protection Technology or as an Authorized Recording Method. The MPAA anticipates working with SmartRight to address numerous specific SmartRight technology questions, but in this response will only highlight global concerns with the technology, which include the following four issues: (1) that Applicant clarify how it proposes to impose reasonable and affirmative constraints on redistribution of content; (2) that Applicant clarify how SmartRight will ensure that an upstream Covered Demodulator Product properly controls content sent to a HDCP output; (3) that Applicant demonstrate sufficient revocation and renewal processes; and (4) that Applicant demonstrate change management procedures and effective participation of content owners. In addition, to facilitate ready consideration of any future filing, Applicant should also confirm that each member of the Applicant will itself be bound by the terms of the SmartRight license, and that SmartRight places no obligations on content providers, broadcasters, and others.

As an initial note, this proceeding, and the Commission's review of the content protection technologies, related functionalities, and licenses submitted in this and other proceedings, are concerned only with whether the proposal meets the interim requirements the Commission identified for the protection of digital broadcast television content. This response, therefore, is based on the understanding that if the Commission decides to authorize SmartRight on an interim basis for use in protecting Marked and Unscreened Content, which the MPAA opposes for the reasons set forth herein, that authorization extends only to the use of the content protection technology in a Broadcast Flag application, and does not set a precedent (or even a presumption)

for the technology's use in any other content delivery or secure recording application.¹ In addition, we have reserved comment on the bulk of licensing terms, trusting that the marketplace negotiations of the agreements will produce acceptable business terms.

I. Applicant Must Clarify How It Proposes to Impose Reasonable and Affirmative Constraints on Redistribution of Content

The Applicant asserts that SmartRight prevents indiscriminate, unauthorized redistribution over the Internet outside of a secure authorized domain of a limited number of family-owned devices, known as a Personal Private Network (PPN), in combination with proximity control. While conceptually this appears interesting, and the MPAA appreciates the Applicant's incorporation of proximity controls to limit the scope of redistribution, the Application fails to provide sufficient information on such controls and how the PPN is established and managed, both of which are necessary in determining whether the technology can effectively control unauthorized redistribution.

For example, it is unclear how the process of associating devices to a single PPN is managed and what the maximum number of "Presentation Display Devices" is that may belong to an individual's PPN. The Applicant's description of their "Proximity Control" mechanisms, "a balanced analysis of the number of routers and the latency time of communication", is also insufficient information to determine the reach and the effectiveness of limiting the scope of redistribution, which Applicant has indicated may be worldwide. It is also not clear whether proximity control will be used to manage the propagation of the PPN when new Presentation

¹ For example, the interim authorization of a content protection technology would not determine in any way whether that technology appropriately protects content with copy restrictions delivered through high-definition analog outputs, as such outputs were not the subject of the Broadcast Flag proceeding.

Display Devices attempt to join the PPN across the Internet. The answers to these questions are essential for determining the scope of redistribution control.

Without additional information, it is also unclear how susceptible the system could be to manipulation. For example, there appear to be no time constraints limiting how often a Presentation Display Device can erase and change its PPN Network Key. If users can buy a Presentation Display Device (e.g., TV receiver), initialize it to their PPN but then change this device's PPN Key without any time constraints, they could easily switch their TV's PPN to the key that allows playing of the content received from another PPN and then switch back to their original PPN Key when finished. Even with numerical limits on the number of Presentation Display Devices that can belong to a single PPN, the Applicant's technology could still be subverted by ensuring that content sharing participants never exceed the maximum Presentation Display Device count in their PPNs.

The Applicant thus has not produced sufficient evidence that SmartRight achieves the proximity controls necessary to protect Marked and Unscreened Content against unauthorized redistribution. In the context of this interim process, reliance on personal affinity-based mechanisms alone would raise too many difficult technological, policy, privacy, and legal questions that are not appropriately addressed in this proceeding. The use of personal affinity-based controls, without proximity controls, would essentially allow consumers to be retransmitters of content owned by others, a far-reaching situation never before faced by the Commission, and new as well to content providers, broadcasters, manufacturers, and others, including even consumers themselves. Physical redistribution, which has been in existence for years, is well understood; however, there are difficult questions concerning what technological limits need to be placed on consumer retransmission such that content owners' rights are not

trampled and the digital transition thwarted. These are not the sort of issues that are appropriately addressed in an accelerated, interim proceeding.

In exchanges during the proceeding which led to this interim certification procedure, reference was occasionally made to the notion of “remote access” – that is, to circumstances under which the technology need not inhibit, and indeed might facilitate, transmission to locations remote from the home receiver. The MPAA Parties are not opposed to that notion as such; however, we strongly believe that careful consideration of numerous interrelated practical, business, legal, and technological considerations which underlie the appropriate “circumstances” is a fundamental necessity and complex undertaking – including a threshold issue of whether it is better suited to government involvement or marketplace resolution.² Converting the consumer to a re-broadcaster is a far-reaching step; for that reason we believe it is premature, inappropriate, and counterproductive to approve in this interim proceeding this or any other technology which,

² The remote access issue is precisely presented under the heading of “personal digital network environment” (to the extent it extends beyond the home, the PDNE is essentially a remote-access zone) in the Commission’s Further Notice of Proposed Rulemaking in the Docket No. 02-230, FCC 03-273 (rel. Nov. 4, 2003). *The conclusion of that inquiry should not be predetermined in this relatively summary and fast track proceeding. Moreover, comments in that docket generally agreed that it was premature, at best, to address this issue. See, e.g., Comments of MPAA et al. at 8 (“[A]n attempt to regulate or define this area will inevitably risk substantial and continuing conflict with copyright law definitions of exclusive rights pertaining to performance and distribution, and significantly impair if not render impossible the efforts of copyright owners to protect those right by technological means. It will also fundamentally impair and interfere with emerging business models designed to enhance consumer choice and consumer enjoyment of remote usage technologies.”)* (emphasis added); Comments of Time Warner Inc. at 10-12 (noting and illustrating, *inter alia*, “substantial effect and alter[ation] of existing video distribution agreements and business models”; “implica[tion] of significant and controversial copyright law issues”; provoking “protracted legal conflicts and consumer confusion”; existing cross-industry efforts to “accommodate consumer interests to use content flexibly”; enmeshing and undermining pre-existing business and licensing relationships including geographic limitations that “are particularly important in the broadcast television context, since many broadcast programs are licensed to television stations pursuant to strict and well-defined local market restrictions”); Comments of the Office of the Commissioner of Baseball *et al.* at 6-7 (concern that remote access regimes “must be consistent with copyright owners rights” and “go no further than copyright law permits”). Although differing with the MPAA parties on rationale (and hence reinforcing the Time Warner prediction of “protracted legal conflict”) the Comments of Public Knowledge and Consumers Union (at 11-12) explicitly acknowledged that defining a PDNE “will tread on the prerogatives of Congress in defining copyright law and associated doctrines such as fair use.” Other commenting parties rejected the need for a government defined PDNE or zone of remote access on grounds that differ from the MPAA parties but, like those of Public Knowledge and Consumers Union, amply forecast the contentious and difficult nature of the exercise, which far transcends the limited scope and purpose of the instant proceeding. *See, e.g.,* Comments of the IT Coalition at 6-8; Comments of Digital Transmission Licensing Administrator LLC at 16-17.

on the present record at least and unless modified or sufficiently clarified, does not take meaningful and affirmative steps to limit redistribution by proximity to the home receiver.

Technologies considered for interim authorization must therefore contain, as a necessary condition, proximity controls that approximate the physical constraints that have heretofore prevented consumers from being retransmitters. Limiting the “proximity” means that the technology affirmatively and reasonably constrains unauthorized redistribution from extending beyond a Covered Demodulator Product’s local environment – i.e., the set of compliant, authorized devices within a tightly defined physical space around that product. Affirmative and reasonable constraints may include the use of controls to limit distance from a Covered Demodulator Product, or limits on the scope of the network addressable by such Covered Demodulator Products. Personal affinity-based controls that approximate association of such set of devices with an individual or household may be beneficial to use in addition to such proximity constraints, but are not a substitute for them at this time.

While SmartRight is obviously a promising technology, as currently submitted to the Commission, there is not sufficient evidence to determine if it achieves proximity control. As a result, devices in a SmartRight PPN may be able to be located – and thus protected content may flow – anywhere. We believe SmartRight’s proponents understand these concerns and have made an estimable effort to address them. Nevertheless, for the reasons stated above, SmartRight cannot be authorized in this interim process until the Applicant is able to sufficiently describe a proximity component in the technology. The MPAA Parties look forward to working with the Applicant to work further on its submission in this regard.

II. SmartRight Must Assert Upstream Controls Over Downstream HDCP Functions

Although SmartRight has not yet been deployed, Applicant asserts that it is interoperable in that it can work in conjunction with other approved digital content protection systems or function as an independent system. If interoperable with HDCP as a downstream technology, Applicant must clarify how the proposed technology will ensure that an upstream Covered Demodulator Product properly controls the flow of Marked and Unscreened Content sent to a HDCP-equipped output. Applicant has identified HDCP as a potential protected digital output downstream from Applicant's content protection technology. Due to the unique operational aspects of the HDCP technology, if Applicant's content protection technology authorizes HDCP as a protected downstream output, any Covered Demodulator Product using Applicant's technology must assert upstream control of the flow of Marked and Unscreened Content being sent to a HDCP function. This is because the HDCP function cannot assert control over the output of (or prevent the delivery of) Marked and Unscreened Content to an HDCP device, but can only signal upstream to the proposed technology when the HDCP function is actively engaged and able to deliver protected content. By way of example, when the HDCP function performs revocation processing and determines that a revoked HDCP device is connected, the HDCP function will relay this information upstream to the Applicant's content protection technology. But the HDCP function does not have the ability to turn off its output to stop the flow of content to the revoked device. The HDCP technology relies on the upstream content protection technology to turn off the flow of content when it receives such a message requiring transmission of content to stop from the HDCP function.

In order to ensure the security of a system with multiple devices and in particular the effectiveness of any revocation process, if HDCP is an authorized downstream output from

Applicant's technology, Applicant should require this upstream control function as part of its licensing terms with any adopter manufacturing a Covered Demodulator Product.

III. Applicant Must Clarify Its Revocation and Renewal Processes

The Application states that individual embedded modules, smart cards, devices, and PPNs can be revoked via a revocation list created and managed by the SmartRight Association, and carried with the content. The Application, however, does not provide adequate information for assessing the overall effectiveness of this revocation mechanism. It is not clear how often revocation lists will be updated and on what basis they will be provided to content owners and broadcasters for carriage in content. Further, the decision to implement revocation is vested solely within the discretion of the SmartRight Association. As the Commission has recognized in this proceeding and as numerous private agreements submitted reflect, content owner participation in revocation proceedings is vital in order to ensure the effectiveness of the technology. (As discussed in our Initial Comments in the Broadcast Flag FNPRM at 9, revocation is an important but limited tool in dealing with unfortunately inevitable hacking attempts and related intrusions, and is a more desirable alternative, when useful, than the actual "withdrawal" of authorization for technologies because it preserves the full past and future functionalities of unaffected devices.)

The current revocation processes contemplated in the Application are inadequate as the Applicant will have little practical incentive to identify, investigate, and take action against compromised device keys or identity certificates. Indeed, since manufacturers will comprise the Applicant's primary customer base, it may have incentive not to antagonize manufacturers by invoking revocation. It is therefore critical that content owners be provided with the right under

a license to request that device revocation be invoked, and that procedures be set forth in the license for a fair and impartial determination of the response to such a request.

As the Application clearly recognizes, in the case of software implementations, a content protection technology must also provide full system renewability and upgradeability, which is typically planned for in the distribution of software products. The MPAA appreciates the Applicant's incorporation of an embedded module and smart card renewal mechanism, yet the procedures identified for renewal contemplate that decisions will be solely within the discretion of the SmartRight Association and at such time as "unauthorized distribution has reached a level to justify the cost of renewal." Clearly, modification and further clarification including the meaningful role of content providers and broadcasters in the renewal decision process is needed before SmartRight can receive interim authorization.

Additionally, in order to effectuate revocation, renewal, or other aspects of a proposed technology that require information to accomplish a process or continued robustness or efficiency of the technology over time, it is necessary that a standardized means for delivering this information in the ATSC transport stream is developed and that FCC approval of any protected digital output and secure recording technology include obligations that Covered Demodulator Products and downstream devices properly receive, preserve, process, and convey downstream, as appropriate, such information. In any subsequent filing, Applicant should explain how it will deal with this issue.

IV. Applicant Must Subject Changes to Effective Change Management Procedures and Demonstrate Effective Participation of Content Owners

Although the Adopter license submitted by the Applicant contemplates participation of content owners in change management and third party beneficiary enforcement of the license terms, the Applicant has failed to identify the terms and conditions associated with such

participation. Such terms are typically found in a content participant agreement, which was not provided with the Application, and the Applicant should provide such terms in its reply submission. Owing to the critical nature of these matters, the omission of a meaningful role for content owners or broadcasters in the Change Management process should preclude approval of SmartRight in its current form.

In addition, as noted above, a critical component of any content protection technology is the ability of content owners to enforce the robustness and compliance requirements against manufacturers. In private agreements, this allows content owners, who have more of an interest in enforcement of the compliance and robustness rules than technology vendors, to enforce those provisions without relying on the technology manufacturer to do so. That reasoning is no less applicable in the Broadcast Flag context. The success of the Broadcast Flag regulation depends not only on the regulation itself, but also on the license terms that replicate the regulation's compliance and robustness requirements downstream. The Commission has no direct enforcement power over downstream devices, and there may be no provision or resources to pursue technology manufacturers for failure to enforce their licenses. It is thus equally important in this context, therefore, that content providers have third-party beneficiary rights allowing pursuit of device manufacturers that breach the terms of the content protection technology license.

V. If Applicant Resubmits Its SmartRight Application, It Should Facilitate Ready Discussion by Clarifying That It Is Bound to SmartRight's License and That SmartRight Imposes No Obligations on Content Providers, Broadcasters, and Others

The MPAA Parties request that Applicant, as part of any resubmission of SmartRight, also respond to and/or clarify the following issues in a satisfactory manner in order to facilitate ready consideration of SmartRight technology by the Commission in this proceeding.

First, Applicant should clarify that it will abide by the SmartRight compliance and robustness rules when it incorporates SmartRight into its own products. The critical issue is that no manufacturer of a downstream device receiving Marked or Unscreened Content should be able to do so without agreeing to follow compliance and robustness rules equivalent to those in the Broadcast Flag regulation. Applicant should therefore clarify that for any use of the SmartRight technology, Applicant itself is obligated to comply with the compliance and robustness rules of the SmartRight license agreement (when they are added) in the same manner as any other Adopter licensee of the SmartRight technology.

Second, Applicant should clarify that there are no obligations that would impact content owners, broadcasters, consumers, or others described below by use of its technology.

SmartRight could become one of many technologies included in the Broadcast Flag system. All approved technologies will receive broadcast content marked with the Broadcast Flag and may be invoked or “triggered” in response to the Broadcast Flag in various devices, such as set-top boxes and digital video recorders. Content providers, broadcasters, and others currently cannot direct which approved technologies may receive broadcast content marked with the Broadcast Flag or which approved technologies may get triggered by the Broadcast Flag. Because content providers, broadcasters, and others exercise no direct control over the actual use of SmartRight (or any of the other potential approved technologies), Applicant should clarify that broadcasters, content providers, and others who do not take a license to the SmartRight technology but who mark or broadcast content with a Broadcast Flag that triggers SmartRight are not subject to any obligations to Applicant, including but not limited to intellectual property licensing obligations. Furthermore, Applicant should certify, as a condition of interim authorization, that no consumer

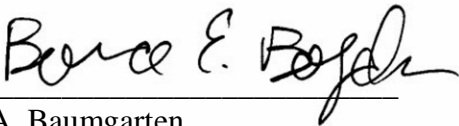
transmitting or receiving content marked with the Broadcast Flag signal will incur any claim of obligation from Applicant.

CONCLUSION

We look forward to Applicant's satisfactory responses on these issues, and to working with Applicant toward the goal of the Commission's ultimate authorization of SmartRight on an interim or final approval basis for use in protecting digital broadcast content under the Broadcast Flag regulation.

Respectfully submitted,

THE MOTION PICTURE ASSOCIATION OF AMERICA, INC.
METRO-GOLDWYN-MAYER STUDIOS INC.
PARAMOUNT PICTURES CORPORATION
SONY PICTURES ENTERTAINMENT INC.
TWENTIETH CENTURY FOX FILM CORPORATION
UNIVERSAL CITY STUDIOS LLLP
THE WALT DISNEY COMPANY
WARNER BROS. ENTERTAINMENT INC.

By: 

Jon A. Baumgarten
Bruce E. Boyden
Proskauer Rose LLP
1233 Twentieth Street NW, Suite 800
Washington, DC 20036
(202) 416-6800

Counsel for the Commenting Parties